

nTAP™ Product Family

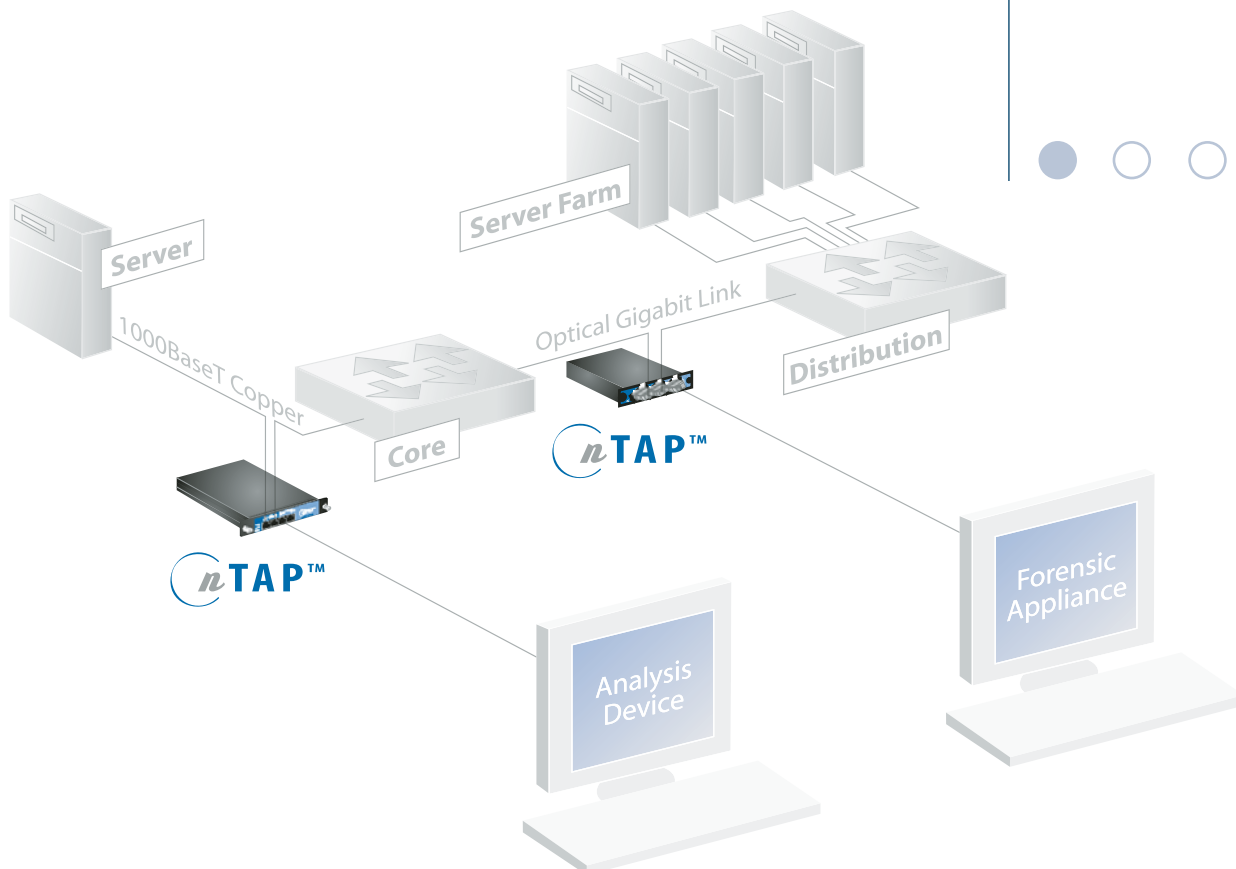
Monitor mission-critical network links transparently and economically



Network Instruments nTAPs ensure complete visibility into your high-speed network links without compromising network performance or risking costly downtime. Regardless of your link type, device type or analysis tool, there is an nTAP solution that fits your needs and your budget.

nTAPs are ideal for enterprise organizations using analysis tools such as network analyzers, protocol analyzers, intrusion detection or prevention systems, forensic appliances, remote monitoring appliances, RMON probes, and security monitoring devices. The nTAP product family offers flexibility with a variety of configurations for both copper and optical fiber.

The security and convenience of nTAPs makes them preferable to inline connections for network analysis and intrusion detection applications. Because an nTAP has no address on the network, it cannot be the target of a hack or virus attack. nTAPs are economical to install, allowing you to leave them permanently deployed. A permanent connection allows you to connect and disconnect the monitoring or analysis device from the nTAP without having to break the full-duplex signal.



nTAP Advantages

Guarantees high-volume data delivery

The nTAP offers complete visibility regardless of traffic levels. Unlike the SPAN port or port mirror mechanisms on a switch, the nTAP cannot drop packets, nor can it affect switch performance.

No risk of downtime

With an nTAP permanently installed, you never need to bring the link down to attach an analyzer or other device. Even if power to the nTAP fails, your critical links will continue to perform.

Flexibility

The nTAP product family includes a variety of models and configuration options. Whether you need to monitor copper or optical links there is an nTAP solution to bridge the gap.



TAP into Network Performance and Visibility

Error View

One of the key advantages an *nTAP* has over a switch port mirror is its ability to provide access to all network traffic, including errors found in the physical layer from both sides of a full-duplex link.

Latest Technology

By utilizing the latest chipsets, *nTAP*s offer a more compact design and increased reliability, offering the next generation of passive analysis.

Network Transparency

*nTAP*s support redundant failover links on your network. If one side of the link should fail, the *nTAP* is made transparent so that the other side can take appropriate action such as switching to a redundant link. This provides additional support for managing network connections.

Unique Offerings

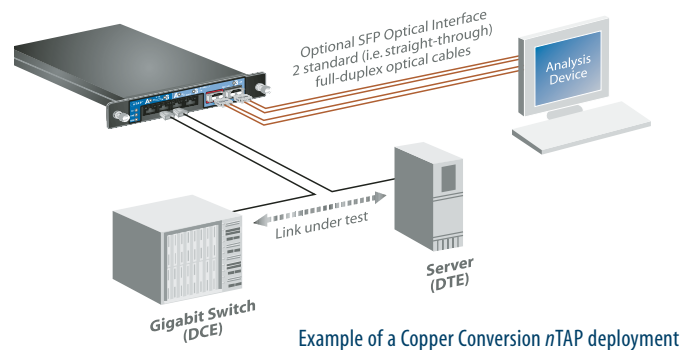
Unlike competitive offerings, the *nTAP* product family includes an auto-negotiating 10/100/1000 Copper *nTAP* and a 10/100/1000 Copper to Optical Conversion *nTAP* for greater flexibility in your current and future needs.

Meets International RF Emission Standards

*nTAP*s are certified by both the FCC and CE organizations for worldwide use. For emissions, CE marks and additional compliance information, please visit www.networkinstruments.com.

*nTAP*s for Copper Links

*nTAP*s are available to monitor copper links up to gigabit speed. Conversion *nTAP*s allow you to analyze copper links through an optical or copper analysis interface.



10/100 Copper *nTAP*



Monitor full-duplex, fast Ethernet connections with copper analysis output

- Includes A and B copper ports to connect to devices on either side of the link under test
- Includes two copper output ports, which send the full-duplex data stream to any dual-receive copper analysis or monitoring device
- Supports up to 200 Mbps

10/100/1000 Copper *nTAP*



Monitor full-duplex links up to gigabit speeds in one, convenient device

- Includes A and B copper ports to connect to devices on either side of the link under test
- Includes two copper output ports, which send the full-duplex data stream to any dual-receive copper analysis or monitoring device
- Supports up to 2000 Mbps

10/100/1000 Copper to Optical Conversion *nTAP*

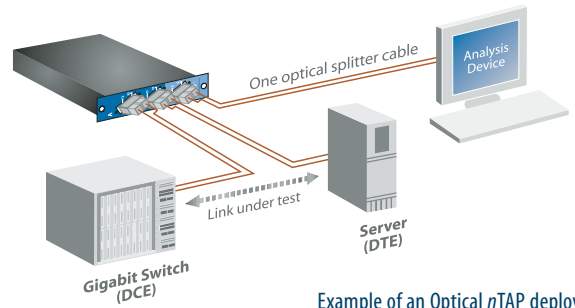


Monitor full-duplex links up to gigabit speed with copper or fiber analysis outputs

- Includes A and B copper ports to connect to devices on either side of the link under test
- Includes a choice of copper or fiber output ports, which sends the full-duplex data stream to a dual-receive analysis or monitoring device
- Available with SFP modules that convert data from a copper link to an SX, LX or ZX optical fiber analysis interface
- Virtually any SFP module can be plugged in for universal compatibility with any monitoring or analysis hardware
- Supports up to 2000 Mbps

nTAPs for Optical Fiber Links

Optical nTAPs use prisms to split the signal from a full-duplex connection between the network and the analysis device. Optical nTAPs offer a choice of 50/50, 60/40, 70/30, 80/20 and 90/10 signal split ratio, so you can choose how the signal strength will be distributed between the original destination and the analysis port. Available in single-, four-, or six-channel configurations for higher port densities.



Example of an Optical nTAP deployment

Single-Channel Optical nTAP



Monitor full-duplex links at gigabit speed with optical analysis outputs

- Includes A and B optical ports to connect to devices on either side of the link under test
- Includes an optical output port, which sends the full-duplex data stream to a dual-receive optical analysis or monitoring device
- Available in single-mode or multimode and a variety of split ratios
- Supports up to 2000 Mbps

Four-Channel Optical nTAP



Monitor up to four full-duplex links at gigabit speed in one unit

- Each channel includes A and B optical ports to connect to devices on either side of the link under test
- Each channel includes an optical output port, which sends the full-duplex data stream to a dual-receive analysis or monitoring device
- Available in single-mode or multimode and in a variety of split ratios
- Set in a 19-inch 1U rack mountable unit
- Supports up to 2000 Mbps

Six-Channel Optical nTAP



Monitor up to six full-duplex links at gigabit speed in one unit

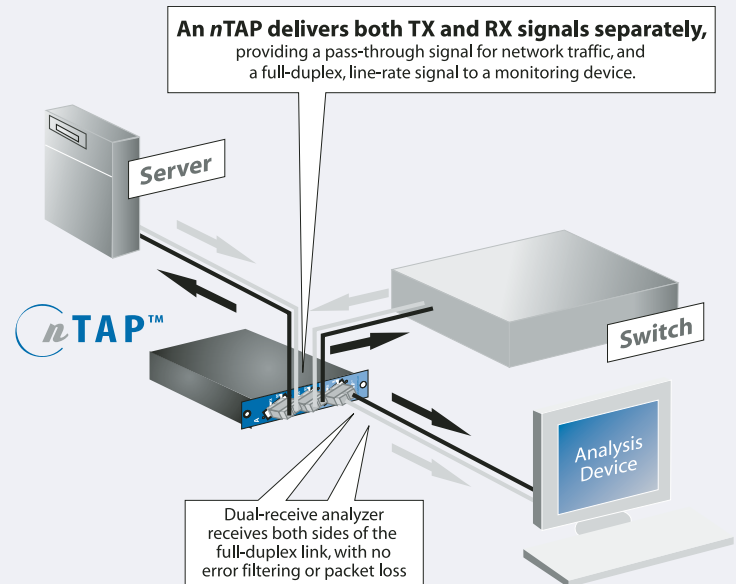
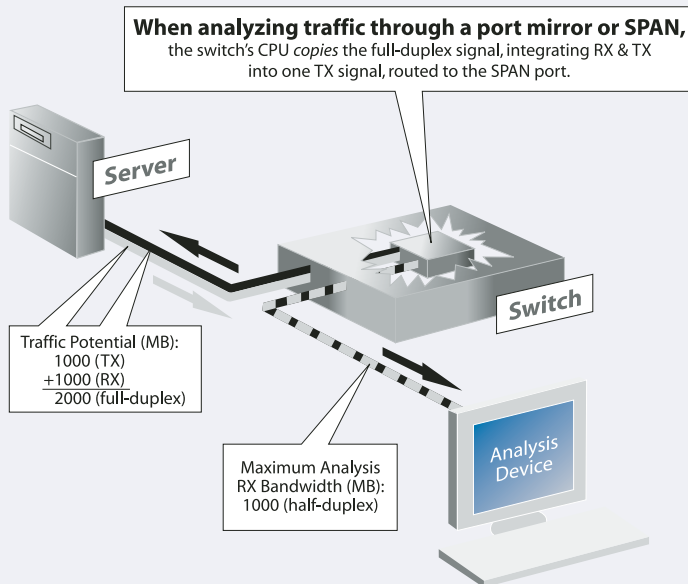
- Each channel includes A and B optical ports to connect to devices on either side of the link under test
- Each channel includes an optical output port, which sends the full-duplex data stream to a dual-receive monitoring device
- Available in single-mode or multimode in a variety of split ratios
- Set in a 19-inch 1U rack mountable unit
- Supports up to 2000 Mbps

Using a SPAN port vs. an nTAP for Gigabit Analysis

For network environments that demand full-duplex gigabit analysis now, or in the future, a SPAN port is inadequate. An nTAP can guarantee that your analysis device receives both sides of the full-duplex data stream.

An nTAP enables complete visibility into your full-duplex links

- Unlike the SPAN port or port mirror mechanisms on a switch, nTAPs cannot drop packets
- nTAPs do not affect switch performance
- nTAPs assure up to 2000 Mbps of data delivery into the analysis device



Optical nTAP Technical Specifications		
Dimensions	Single-Channel	Rack mount
Height (box)	1.1 in / 2.79 cm	1.72 in / 4.37 cm
Width (box)	3.97 in / 10.08 cm	17 in / 43.18 cm
Depth (box)	5.08 in / 12.90 cm	5.94 in / 15.09 cm
Height (faceplate)	1.14 in / 2.90 cm	1.72 in / 4.37 cm
Width (faceplate)	5.09 in / 12.93 cm	19 in / 48.26 cm
Wavelength Ranges		
850/1300 (Dual-window) Multi-mode	+/- 15 nm	
1310/1550 (Dual-window) Single-mode	+/- 40 nm	
Environmental Requirements		
Specifications	Operational Range	
Temperature Range (operating)	-40° to +176° (F) / -40° to +80° (C)	
Temperature Range (storage)	-40° to +185° (F) / -40° to +85° (C)	
Humidity	90% (non-condensating)	
Supported Media		
Multimode 62.5/125µm	850-nm, SC connector	
Multimode 50/125µm	850-nm, SC connector	
Single-mode	1310-nm, SC connector	
Copper nTAP Technical Specifications		
Dimensions		
Length	7.66 in / 19.46 cm	
Width (front)	5.85 in / 14.86 cm	
Width (back)	4.55 in / 11.56 cm	
Height	1.095 in / 2.8 cm	
Power Requirements		
Specifications	Measurement/Value	
Maximum Power Dissipation	14 watts	
Maximum Power Consumption	5V @ 2.8 amps	
AC Input	90V-264V, 47-63 Hz	
Voltage Tolerance	5V +/- 5%	
Ripple	Maximum 100 mV	
Operational Current	5V @ 2.8 amps	
Supported Media		
Interface	Media	
Link A/Link B (Link under test)	Depending on model purchased, 10/100 BaseT Copper or 10/100/1000BaseT Copper	
Copper Analyzer Interface	Depending on model purchased, 10/100 BaseT Copper or 10/100/1000BaseT Copper	
SFP Conversion Analyzer Interface (Depending on SFP module purchased)		
	SX, 850-nm, 1000BaseSX, Multimode (MM), LC connector	
	LX, 1310-nm, 1000BaseLX, Multimode or Single-mode (MM/SM), LC connector	
	ZX, 1550-nm, 1000BaseZX, Single-mode (SM), LC connector	
Environmental Requirements		
Specifications	Operational Range	Storage Range
Temperature range	32°-120° F / 0°-55° C	32°-167° F / 0°-75° C
Humidity	20-85% (non-condensating)	35-85% (non-condensating)
Regulatory Compliance		
Specifications	Certification	
Emissions	FCC Part 15 Class B	
CE Mark	EN61000-3-2, EN55024, EN55022A	

Maximum Attenuation

Split ratio	Single-mode	Multimode
50/50	4.0/4.0 dB	4.4/4.4 dB
60/40	2.9/5.0 dB	3.6/5.6 dB
70/30	2.3/6.2 dB	3.0/6.9 dB
80/20	1.7/8.0 dB	2.4/8.8 dB
90/10	1.2/11.4 dB	1.9/11.9 dB

All Network Instruments nTAPs include a 1-year warranty.

About Network Instruments

Network Instruments is the industry-leading developer of distributed, user-friendly and affordable network management, analysis and troubleshooting solutions. The award-winning Observer family of products combines a comprehensive management and analysis console with high-performance Probes and TAPs to provide integrated monitoring and management for the entire network (LAN, 802.11 a/b/g, gigabit, WAN). All Network Instruments products are designed utilizing a Distributed Network Analysis (NI-DNA™) architecture. With NI-DNA, the Observer solution set simplifies network troubleshooting and management, optimizes network and application performance and scales to meet the needs of any organization. Founded in 1994, Network Instruments is headquartered in Minneapolis, Minnesota with offices in London, Munich, Paris, Toronto, and multiple cities throughout the United States with distributors in over 50 countries. More information about the company, products, innovation, technology, NI-DNA, becoming a partner, and NI University can be found at: www.networkinstruments.com.

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